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# COMBINED CLAIMS AND ENROLLMENT DATA

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# COMBINED CLAIMS AND ENROLLMENT DATA

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## INTRODUCTION

The Combined Claims and Enrollment Data file contains linked enrollment and utilization data. The CMHS File contains beneficiary characteristics data and annual utilization data for a sample of Medicare beneficiaries. In addition, the file contains annual summary information over a period of years and data for a five percent sample of beneficiaries, regardless of their utilization activity.

### *Continuous Medicare History Sample (CMHS) File*

Until the implementation of the CMHS File, obtaining longitudinal, person-level data for a time period of more than one year required the combination of data from various individual Medicare program files. The CMHS File combines person-level data drawn from a variety of Medicare databases and files spanning more than 20 years into one file. As such, the CMHS File provides an efficient source of hospital and medical insurance data and permits in-depth studies of utilization patterns over extended time periods.

#### *File Creation*



The initial CMHS File was created using 1974 enrollment and utilization data. Since then, the record for an individual beneficiary is updated each year to include utilization summaries for that year. Additionally, any new beneficiaries who match the sample selection criteria and become eligible during the year are added to the file.

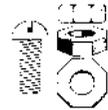
The CMHS File contains beneficiary characteristics and summary utilization data for a five percent sample of Medicare beneficiaries. Beneficiaries are included in the sample based on Health Insurance Claim (HIC) number and Hospital Insurance (HI) or Supplementary Medical Insurance (SMI) benefit entitlement. The initial sample of beneficiaries was drawn from those individuals represented in the Health Insurance Master (HIMA) File, the predecessor to the Enrollment Database (EDB), as of April 1975. Each year, additional beneficiaries are added to the file from the EDB to maintain a five percent sample of the total Medicare population. Once a beneficiary is included in the sample, he or she remains in the file regardless of utilization activity or death. Each year, the demographic characteristics of new and previously included beneficiaries are updated using the Health Insurance Skeleton Eligibility Write-off (HISKEW) File. These characteristics are based on data from the mid-point of the year.

Prior to Common Working File System (CWF) implementation, utilization data for each year were obtained from inpatient hospital, Skilled Nursing Facility (SNF), Home Health Agency (HHA), and outpatient bill records, and stay records. Physician/supplier service information was obtained from payment records. Since CWF implementation, claims records are used instead of bill and payment

records. However, some utilization data are still obtained from Medicare Provider Analysis and Review (MEDPAR) inpatient hospital and SNF stay records.

In the initial preparation of the CMHS File, utilization data were summarized from records for services in 1974 that were processed through June of 1975. Each subsequent year, the file has been updated with annual utilization data received since the last update. For a given year, the update is based on records with service dates from January 1, 1974, to the end of the current year, that are processed through June 30 of the following year. For example, the utilization data contained in the 1990 file are based on records with service dates of 1974 through 1990 that were processed through June 30, 1991.

### *File Maintenance*



The CMHS File is updated annually. The process for updating the CMHS File is discussed in File Creation. As part of the Quality Assurance (QA) process performed during the annual update, utilization information is summarized across beneficiaries and is examined to determine whether the total utilization is within the expected range.

### *File Structure and Usage*



The CMHS File contains one variable length record for each beneficiary ever included in the file. Each record contains one fixed portion and a variable number of trailers. The fixed portion of the record is present for every beneficiary and contains a group of data elements that reflect the personal characteristics of the beneficiary. The presence of information in trailers varies from year to year depending on beneficiary eligibility and utilization.

The CMHS File provides efficient access to longitudinal beneficiary-specific data. This access facilitates in-depth studies of Medicare utilization patterns over extended time periods. Each record provides enrollment data for one beneficiary in the sample, the type of service used by the beneficiary since he or she was included in the sample, and the number of years since the beneficiary's history was included in the record.

### *Data Structure and Usage*



Each record in the CMHS File represents the utilization history of one beneficiary. The CMHS File is a sequential flat file containing variable length records with up to 12 sections: one fixed portion, year indicators, a trailer counter, and nine trailers. The record length varies depending on the type and amount of Medicare service utilization, type of service used, and number of years since the beneficiary was included in the sample.

The fixed portion of the record contains enrollment information such as date of birth, sex, race, and entitlement status. In addition, it includes a set of data elements indicating beneficiary eligibility status for each year; beneficiary identification information; record size, type, and update information; and last short-stay hospitalization discharge date, DRG, and discharge status.

The year indicators appear as yes/no flags representing possible years of Medicare eligibility from 1974 to the present. The trailer counts indicate the number of occurrences of each type of trailer: annual, demographic, HHA, outpatient, payment record, inpatient long stay, inpatient short stay, SNF, and hospice services.

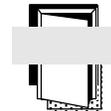
The annual data trailer includes demographic trailer location, utilization trailer indicators, Part A and Part B reimbursement amounts, and Group Health Plan (GHP) and third party payment indicators. The demographic data trailer includes data elements that note changes in benefit status, residence, and type of enrollment.

HHA, outpatient, inpatient long stay, inpatient short stay, SNF, and hospice trailers are present each year the beneficiary uses a particular type of Medicare service. These trailers contain summary utilization information such as visits, stays, days of coverage, charges, and reimbursement amounts. The payment record trailer contains payment information by type of Part B covered services and supplies.

File records are sorted by HIC number. The file contains entitlement and annual utilization data by beneficiary from January 1974 to the present. The CMHS File was initially populated in 1974 with approximately 1.3 million records. Subsequent updates have added approximately 100,000 records each year.

The CMHS data can be used to study utilization patterns over time. It can also be used to examine Medicare costs and service use by beneficiary characteristics such as age, sex, and age at death.

#### *Methods of Access*



In addition to the standard CMHS File, specialized versions of the file are available on an ad hoc basis.

#### *Migration of Data*



Prior to CWF implementation, utilization data included in the CMHS File for each year were obtained from inpatient hospital, SNF, HHA, and outpatient bill records, and stay records. Physician/supplier service utilization information was obtained from payment records. After CWF implementation, claims records are used instead of bill and payment records to update the CMHS File.

*List of Data Elements*



A list of the data elements contained in the CMHS File, along with brief definitions and coding schemes, will be included in the future on the HCFA web site at [www.hcfa.gov](http://www.hcfa.gov).